

Appl. No. : 09/756,442
Filed : January 8, 2001

IN THE SPECIFICATION:

Please amend the specification as follows:

(1) The paragraph from page 2, line 28 to page 3, line 3 has been amended as follows:

The IF signals of the opposite phase (0° and 180°) and same amplitude are respectively filtered to a desired IF frequency by the IF filters 8 and 9. Typically, the IF filters 8 and 9 are band-pass filters for allowing signals of only selected frequencies to pass therethrough. Moreover, the two IF signals filtered by the IF filters 8 and 9 are combined in the same phase into one IF signal by the 180° hybrid coupler 10. As shown in Figure 5, the 180° hybrid coupler 10 produces the resultant IF signal at one output terminal while its other terminal is terminated by the terminal resistor R2.

(2) The paragraph from page 3, line 34 to page 4, line 10 has been amended as follows:

When increasing the pattern gap G, the isolation between the IF signal and the RF signal increases ~~while~~ which means that the degree of coupling between the IF signal and the RF signal decreases. Further, when increasing the gap, an insertion loss also increases, which degrades the transmission characteristics of the overall mixer. Therefore, it is necessary to optimize the pattern gap G to fit the design specification. Similarly, the insertion loss decreases when increasing the pattern width W ~~while~~ which means that a

Appl. No. : 09/756,442
Filed : January 8, 2001

bandwidth of the coupler is broadened, which degrades the IF signal separation (selectivity). Therefore, it is necessary to optimize the pattern width W to fit the design specification.

(3) The paragraph from page 8, line 5 to page 8, line 14 has been amended as follows:

The IF signals of the opposite phase (0° and 180°) and same amplitude are respectively filtered to a desired IF frequency by the IF filters 8 and 9. The IF filters 8 and 9 are band-pass filters for allowing signals of selected frequency to pass therethrough. Moreover, the two IF signals filtered by the IF filters 8 and 9 are combined in the same phase by the 180° hybrid coupler 10, thereby producing one IF signal. As shown in Figure 1, the 180° hybrid coupler 10 produces the resultant IF signal at one output terminal while its other terminal is terminated by the resistor R2.